

Preface

This book was written to fill the gap that exists in the methods of epidemiology of interest to clinical researchers. It will enable a reader who is currently undertaking research to get key information regarding methodology. It will also help health care personnel from all fields (doctors, nurses, allied health, dentists, pharmacists, etc.) to obtain an effective understanding of methodology useful to research in their field as we cover the unique methods not covered properly in current research methods texts. The classic theoretical focus is avoided because we believe that research must be based on understanding guided by the reader's knowledge of the methodology.

Part I begins by introducing readers to the methods used in clinical agreement studies. It is written to suit beginners but without turning off intermediate users. Qualitative and quantitative agreement are presented, and this section explains how we can utilize these methods and their strengths and weaknesses. Part II shows readers how they can interpret and conceptualize diagnostic test methodologies and ends with an introduction to diagnostic meta-analyses. Part III takes the reader through methods of regression for the binomial family as well as survival analysis and Cox regression. Here, the focus is on methods of use to clinical researchers. These methods have different names and multiple interpretations, which are explained. It is important to know what associations you are interested in and know what data are available and in what form they can be used. An in-depth discussion of the use of these methods is presented with a view to giving the reader a clear understanding of their utility and interpretation. Part IV deals with systematic reviews and meta-analyses. A step-by-step approach is used to guide readers through the key principles that must be understood before undertaking a meta-analysis, with particular emphasis on newer methods for bias adjustment in meta-analysis, an area in which we have considerable expertise.

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